



Glossary

abaft	Behind, toward the stern of a vessel.
abeam	To one side of a vessel, at a right angle to the fore-and-aft center line.
advection fog	A type of fog that occurs when warm air moves over colder land or water surfaces; the greater the difference between the air temperature and the underlying surface temperature, the denser the fog, which is hardly affected by sunlight.
aft	Near or toward the stern.
aground	With the keel or bottom of a vessel fast on the sea floor.
Aids to Navigation (ATON)	Lighthouses, lights, buoys, sound signals, racon, radiobeacons, electronic aids, and other markers on land or sea established to help navigators determine position or safe course, dangers, or obstructions to navigation.
allision	The running of one vessel into or against another, as distinguished from a collision, i.e., the running of two vessel against each other. But this distinction is not very carefully observed. Also used to refer to a vessel striking a fixed structure (i.e. bridge, pier, moored vessel, etc.) per marine inspection.
amidships	In or towards center portion of the vessel, sometimes referred to as "midships."
anchorage area	A customary, suitable, and generally designated area in which vessels may anchor.
astern	The direction toward or beyond the back of a vessel.
athwartships	Crosswise of a ship; bisecting the fore-and-aft line above the keel.
attitude	A vessel's position relative to the wind, sea, hazard, or other vessel.



back and fill	A technique where one relies on the tendency of a vessel to back to port, then uses the rudder to direct thrust when powering ahead. Also known as <i>casting</i> .
backing plate	A reinforcement plate below a deck or behind a bulkhead used to back a deck fitting. It is usually made of wood or steel and distributes stress on a fitting over a larger area and prevents bolts from pulling through the deck.
backing spring (line)	Line used when towing a vessel along side which may be secured near the towing vessel's stern and the towed vessel's bow.
ballast	Weight placed in a vessel to maintain its stability.
beacon	Any fixed aid to navigation placed ashore or on marine sites. If lighted, they are referred to as minor lights.
beam	The widest point of a vessel on a line perpendicular to the keel, the fore-an-aft centerline.
Beaufort Wind Scale	A scale whose numbers define a particular state of wind and wave, allowing mariners to estimate the wind speed based on the sea state.
bell buoy	A floating aid to navigation with a short tower in which there are several clappers that strike the bell as it rocks with the motion of the sea.
below	The space or spaces that are below a vessel's main deck.
bilge	The lowest point of a vessel's inner hull, which is underwater.
bilge alarm system	Alarm for warning of excessive water or liquid in the bilge.
bilge drain	A drain used for removing water or liquid from the bilge.
bilge pump	Pump used to clear water or liquid from the bilge.



bitt	A strong post of wood or metal, on deck in the bow or stern, to which anchor, mooring, or towing lines may be fastened.
boat hook	A hook on a pole with a pushing surface at the end used to retrieve or pick up objects, or for pushing objects away.
bollard	A single strong vertical fitting, usually iron, on a deck, pier, or wharf, to which mooring lines or a hawser may be fastened.
bolo line	A nylon line with a padded or wrapped weight thrown from vessel to vessel or between vessels and shore which is used for passing a larger line (see heaving line).
boom	Spar used to spread a fore-and-aft sail, especially its foot; without a sail and with a suitable lift attached, it can be used as a lifting device or derrick.
boundary layer	A layer of water carried along the hull of a vessel varying in thickness from the bow to stern.
bow	Forward end of vessel.
bow line	A line secured from the bow of a vessel. In an alongside towing operation, the bow line is secured on both the towing and the towed vessel at or near the bow and may act as breast line of each.
bowline	A classic knot that forms an eye that will not slip come loose or jam, and is not difficult to untie after it has been under strain.
breakaway	Command given by coxswain, conning officer, or pilot when a helicopter hoisting operation, towing, or alongside evolution has to be terminated due to unsafe conditions.
breaker	A wave cresting with the top breaking down over its face.
breaker line	The outer limit of the surf.



breaking strength (BS)	Refers to the force needed to break or part a line. BS is measured in pounds, more specifically, it is the number of pounds of stress a line can hold before it parts.
breast line	Mooring or dock line extended laterally from a vessel to a pier or float as distinguished from a spring line.
bridge markings	Lights or signs which provide mariners information for safely passing a bridge over a waterway.
bridle	A device attached to a vessel or aircraft (in the water) in order for another vessel to tow it. Its use can reduce the effects of yawing, stress on towed vessel fittings, and generally gives the towing vessel greater control over the tow.
broach	To be thrown broadside to surf or heavy sea.
broadcast notice to mariners	A radio broadcast that provides important marine information.
broadside to the sea	Refers to a vessel being positioned so that the sea is hitting either the starboard or port side of the vessel.
bulkhead	Walls or partitions within a vessel with structural functions such as providing strength or watertightness. Light partitions are sometimes called partition bulkheads.
bullnose	A round opening at the forwardmost part of the bow through which a towline, mooring line or anchor line passes.
buoy	A floating aid to navigation anchored to the bottom that conveys information to navigators by their shape or color, by their visible or audible signals, or both.
buoy moorings	Chain or synthetic rope used to attach buoys to sinkers.



buoy station	Established (charted) location of a buoy.
buoyage	A system of buoys with assigned shapes, colors, or numbers.
buoyancy	The tendency or capacity of a vessel to remain afloat.
can buoy (cylindrical)	A cylindrical buoy, generally green, marking the left side of a channel or safe passage as seen entering from seaward, or from the north or east proceeding south or west.
capsize	To turn a vessel bottom side up.
cardinal marks	Indicate the location of navigable waters by reference to the cardinal directions (N,E,S,W) on a compass.
casting	See Back and Fill.
catenary	The sag in a length of chain, cable, or line because of its own weight and which provides a spring or elastic effect in towing, anchoring, or securing to a buoy.
cavitation	The formation of a partial vacuum around the propeller blades of a vessel.
center of gravity	Point in a ship where the sum of all moments of weight is zero. With the ship at rest the center of gravity and the center of buoyancy are always in a direct vertical line. For surface ships center of buoyancy is usually below center of gravity, and the ship is prevented from capsizing by the additional displacement on the low side during a roll. Thus the point at which the deck edge enters the water is critical because from here onward increased roll will not produce corresponding increased righting force.
center point method, circular area	In SAR, one of several methods to define a search area.
center point method, rectangular area	In SAR, one of several methods to define a search area.



center point method, rectangular area, bearing and distance

In SAR, one of several methods to define a search area.

centerline

An imaginary line down the middle of a vessel from bow to stern.

chafe

To wear away by friction.

chaffing gear

Material used to prevent chafing or wearing of a line or other surface.

characteristic

The audible, visual, or electronic signal displayed by an aid to navigation to assist in the identification of an aid to navigation. Characteristic refers to lights, sound signals, racons, radiobeacons, and daybeacons.

chart

A printed or electronic geographic representation generally showing depths of water, aids to navigation, dangers, and adjacent land features useful to mariners (See *Nautical Chart*).

chine

The intersection of the bottom and the sides of a flat bottom or “V” hull boat.

chock

Metal fitting through which hawsers and lines are passed. May be open or closed. Blocks used to prevent aircraft or vehicles from rolling. Also, blocks used to support a boat under repair.

chop

Short steep waves usually generated by local winds and/or tidal changes. Change of operational control. The date and time at which the responsibility for operational control of a ship or convoy passes from one operational control authority to another.

cleat

An anvil-shaped deck fitting for securing or belaying lines. Wedge cleats are used in yachting to hold sheets ready for instant release.



closeout	Occurs when a wave breaks from the ends toward the middle, or two waves break towards each other; should be avoided because they can create more energy than a single break.
closing	The act of one vessel reducing the distance between itself and another vessel, structure, or object.
clove hitch	A hitch often used for fastening a line to a spar, ring, stanchion, or other larger lines or cables.
Coast Guard-approved	Label denoting compliance with Coast Guard specifications and regulations relating to performance, construction, and materials.
coastal	At or near a coast.
coil down	To lay out a line in a circle with coils loosely on top on one another. (see Fake Down, Flemish Down)
comber	A wave at the point of breaking.
combination buoy	Buoy that combines the characteristics of both sound and light.
combustion	Rapid oxidation of combustible material accompanied by a release of energy in the form of heat and light.
compartment	A room or space on board ship. Usually lettered and numbered according to location and use.
compass	Instrument for determining direction: magnetic, depending on the earth's magnetic field for its force; gyroscopic, depending on the tendency of a free-spinning body to seek to align its axis with that of the earth.
conventional direction of buoyage	The general direction taken by the mariner when approaching a harbor, river, estuary, or other waterway from seaward, or proceeding upstream or in the direction of the main stream of flood tide, or in the direction indicated in appropriate nautical documents (normally, following a clockwise direction around land masses).



corner method	In SAR, one of several methods to define a search area. Latitude and longitude or geographic features of corners of search area are identified.
Cospas-Sarsat system	A satellite system designed to detect distress beacons transmitting on the frequencies 121.5 MHz and 406 MHz.
course (C)	The horizontal direction in which a vessel is steered or intended to be steered, expressed as angular distance from north, usually from 000 degrees at north, clockwise through 360 degrees.
coverage factor (C)	In SAR, a measure of search effectiveness; ration of sweep width to track spacing: $C = W/S$.
coxswain	Person in charge of a boat, pronounced "COX-un."
crab	To move sidewise through the water.
craft	Any air or sea-surface vehicle, or submersible of any kind or size.
crash stop	Immediately going from full speed ahead to full reverse throttle; this is an emergency maneuver. It is extremely harsh on the drive train and may cause engine stall.
crest	The top of a wave, breaker, or swell.
crucifix	Type of deck or boat fitting that resembles a cross, used to secure a line to. Ex.: sampson post
current (ocean)	Continuous movement of the sea, sometimes caused by prevailing winds, as well as large constant forces, such as the rotation of the earth, or the apparent rotation of the sun and moon. Example is the Gulf Stream.
damage control	Measures necessary to preserve and reestablish shipboard watertight integrity, stability, and maneuverability; to control list and trim; to make rapid repairs of material. Inspection of damage caused by fire, flooding, and/or collision and the subsequent control and corrective measures.



datum	In SAR, refers to the probable location of a distressed vessel, downed aircraft or PIW, which is corrected for drift at any moment in time. Depending on the information received this may be represented as a point, a line or an area.
day mark	The daytime identifier of an aid to navigation (see Daybeacon, Dayboard).
daybeacon	An unlighted fixed structure which is equipped with a highly visible dayboard for daytime identification.
dayboard	The daytime identifier of an aid to navigation presenting one of several standard shapes (square, triangle, rectangle) and colors (red, green, white, orange, yellow or black).
de-watering	The act of removing water from inside compartments of a vessel. Water located high in the vessel, or sufficiently off-center should be removed first to restore the vessel's stability. Used to prevent sinking, capsizing or listing.
Dead in the Water (DIW)	A vessel that has no means to maneuver, normally due to engine casualty. A vessel that is adrift or no means of propulsion.
Dead Reckoning (DR)	Determination of estimated position of a craft by adding to the last fix the craft's course and speed for a given time.
deadman's stick	See Static Discharge Wand.
deck	The horizontal plating or planking on a ship or boat.
deck fitting	Term for permanently installed fittings on the deck of a vessel which you can attach machinery or equipment.
deck scuttle	Small, quick-closing access hole located on the deck of a vessel.
deep "V" hull	A hull design generally used for faster seagoing types of boats.



desmoking	The natural or forced ventilation of a vessel's compartment to remove smoke.
destroyer turn	Used during person overboard situations. The boat is turned in the direction the individual fell overboard, to get the stern of the boat (and the screws) away from the person overboard.
Digital Selective Calling (DSC)	A technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations.
Direction of current	Direction toward which a current is flowing. See <i>Set</i> .
direction of waves, swells, or seas	Direction to which the waves, swells, or seas are moving.
direction of wind	Direction from which the wind is blowing.
displacement hull	A hull that achieves its buoyancy or flotation capability by displacing a volume of water equal in weight to the hull and its load.
distress	As used in the Coast Guard, when a craft or person is threatened by grave or imminent danger requiring immediate assistance.
ditching	The forced landing of an aircraft on water.
dolphin	A structure consisting of a number of piles driven into the seabed or river bed in a circular pattern and drawn together with wire rope. May be used as part of a dock structure or a minor aid to navigation. Commonly used when a single pile would not provide the desired strength.
downwash	The resulting force of the movement of air in a downward motion from a helicopter in flight or hovering.



draft	Measured from the waterline, it is the point on a vessel's underwater body that reaches the greatest depth.
drag	Forces opposing direction of motion due to friction, profile and other components. The amount that a ship is down by the stern.
drift	The rate/speed at which a vessel moves due to the effects of wind, wave, current, or the accumulative effects of each. Usually expressed in knots.
drogue	Device used to slow rate of movement. Commonly rigged off the stern of a boat while under tow to reduce the effects of following seas. May prevent yawing and/or broaching. (see Sea Anchor)
drop pump	A portable, gasoline-powered pump that is transported in a water tight container. Used for de-watering a vessel.
dry suit	A coverall type garment made of waterproof material having a rubber or neoprene seal around the neck and wrist cuffs. Allows the wearer to work in the water or in a marine environment without getting wet.
dynamic forces	Forces associated with the changing environment e.g., the wind, current, weather.
ebb	A tidal effect caused by the loss of water in a river, bay, or estuary resulting in discharge currents immediately followed by a low tidal condition.
ebb current	The horizontal motion away from the land caused by a falling tide.
ebb direction	The approximate true direction toward which the ebbing current flows; generally close to the reciprocal of the flood direction.
eddy	A circular current.



eductor	Siphon device that contains no moving parts. It moves water from one place to another by forcing the pumped liquid into a rapidly flowing stream. This is know as the venturi effect. De-watering equipment used to remove fire-fighting and flooding water from a compartment in a vessel.
Emergency Locator Transmitter (ELT)	Aeronautical radio distress beacon for alerting and transmitting homing signals.
Emergency Position-Indicating Radio Beacon (EPIRB)	A device, usually carried aboard a maritime craft, that transmits a signal that alerts search and rescue authorities and enables rescue units to locate the scene of the distress.
emergency signal mirror	Used to attract attention of passing aircraft or boats by reflecting light at them. Such reflected light may be seen up to five miles or more from the point of origin.
environmental forces	Forces that affect the horizontal motion of a vessel; they include wind, seas and current.
eye	The permanently fixed loop at the end of a line.
eye splice	The splice needed to make a permanently fixed loop at the end of a line.
fairlead	A point, usually a specialized fitting, such as a block, chock, or roller used to change the direction and increase effectiveness of a line or cable. It will, in most cases, reduce the effects of chaffing.
fairways (mid-channel)	A channel that is marked by safemarks that indicate that the water is safe to travel around either side of the red and white vertically striped buoy.
fake down	To lay out a line in long flat bights, that will pay out freely without bights or kinks. A coiled or flemished line cannot do this unless the coil of the line is able to turn, as on a reel. Otherwise a twist results in the line which will produce a kink or jam (see Coil Down and Flemish Down).



fatigue	Physical or mental weariness due to exertion. Exhausting effort or activity. Weakness in material, such as metal or wood, resulting from prolonged stress.
fender	A device of canvas, wood, line, cork, rubber, wicker, or plastic slung over the side of a boat/ship in position to absorb the shock of contact between vessels or between a vessel and pier.
fender board	A board that is hung outboard of your vessel's fenders. Used to protect the side of a vessel.
ferry	To transport a boat, people or goods across a body of water.
fetch	The unobstructed distance over which the wind blows across the surface of the water.
fitting	Generic term for any part or piece of machinery or installed equipment.
fix	A geographical position determined by visual reference to the surface, referencing to one or more radio navigation aids, celestial plotting, or other navigation device.
fixed light	A light showing continuously and steadily, as opposed to a rhythmic light.
flash	A relatively brief appearance of light, in comparison with the longest interval of darkness in the same character.
flashing light	A light in which the total duration of light in each period is clearly shorter than the total duration of darkness and in which the flashes of light are all of equal duration. (Commonly used for a single-flashing light which exhibits only single flashes which are repeated at regular intervals.)
flemish (down)	To coil down a line on deck in a flat, circular, tight arrangement. Useful for appearance only, since unless the twists in the line are removed it will kink when taken up or used. (see Fake Down and Coil Down).

**floating aid to navigation**

A buoy.

flood

A tidal effect caused by the rise in water level in a river, bay, or estuary immediately followed by a high tidal condition.

flood current

The horizontal motion of water toward the land caused by a rising tide.

flood direction

The approximate true direction toward which the flooding current flows; generally close to the reciprocal of the ebb direction.

foam crest

Top of the foaming water that speeds toward the beach after the wave has broken; also known as white water.

fore

Something situated at or near the front. The front part, at, toward, or near the front; as in the forward part of a vessel.

forward

Towards the bow of a vessel.

foul

To entangle, confuse, or obstruct. Jammed or entangled; not clear for running. Covered with barnacles, as foul bottom.

frames

Any of the members of the skeletal structure of a vessel to which the exterior planking or plating is secured.

free communication with the sea

Movement of water in and out of a vessel through an opening in the hull.

freeboard

Distance from the weather deck to the waterline on a vessel.

furl

To make up in a bundle, as in furl the sail.

Global Positioning System (GPS)

A satellite-based radio navigation system that provides precise, continuous, worldwide, all-weather three-dimensional navigation for land, sea and air applications.



gong buoy	A wave actuated sound signal on buoys which uses a group of saucer-shaped bells to produce different tones. Found inside harbors and on inland waterways. Sound range about one mile.
grabline	A line hung along a vessels side near the waterline used for the recovery of persons in the water or to assist in the boarding of the vessel.
grommet	A round attaching point, of metal or plastic, normally found on fenders, tarps, etc.
ground fog	See Radiation Fog.
group-flashing light	A flashing light in which a group of flashes, specified in number, is regularly repeated.
group-occulting light	An occulting light in which a group of eclipses, specified in number, is regularly repeated.
gunwale	Upper edge of a boat's side. Pronounced "gun-ul."
half hitch	A hitch used for securing a line to a post; usually seen as two half hitches.
harbor	Anchorage and protection for ships. A shelter or refuge.
hatch	The covering, often watertight, placed over an opening on the horizontal surface of a boat/ship.
hawsepipe	A through deck fitting normally found above a line locker/hold which allows for the removal of line without accessing the compartment from below deck. Normally only slightly larger in diameter than the line itself.
head up (heads up)	A warning given before throwing a messenger, heaving, or towline to alert people to be ready for receipt of line and to avoid being hit by the object being thrown. Potential danger warning.
heading	The direction in which a ship or aircraft is pointed.



heaving line	Light, weighted line thrown across to a ship or pier when coming along side to act as a messenger for a mooring line. The weight is called a monkey fist.
heavy weather	Heavy weather is determined to exist when seas exceed 8 feet and/or winds are greater than 30 knots.
heel	Temporary leaning of a vessel to port or starboard caused by the wind and sea or by a high speed turn.
helm	The apparatus by which a vessel is steered; usually a steering wheel or tiller.
high seas	That body of water extending seaward of a country's territorial sea to the territorial sea of another country.
hoist	To lift. Display of signal flags at yardarm. The vertical portion of a flag alongside its staff.
hoisting cable	The cable used to perform a boat/helo hoisting evolution.
holed	Refers to a hole or opening in the hull of a damaged vessel.
hull	The body or shell of a ship or seaplane.
hull integrity	Refers to the hull's soundness.
hypothermia	A lowering of the core body temperature due to exposure of cold (water or air) resulting in a subnormal body temperature that can be dangerous or fatal. The word literally means "under heated."
impeller	A propulsion device that draws water in and forces it out through a nozzle.
in step (position)	Refers to the towing boat keeping the proper position with the towed boat. For example; the proper distance in relation to sea/swell patterns so that both boats ride over the seas in the same relative position wave crest to wave crest.



inboard	Toward the center of a ship or a group of ships, as opposed to outboard.
Inboard/Outdrive (I/O)	An inboard engine attached through the transom to the outdrive.
Incident Command System (ICS)	Management system for responding to major emergency events involving multiple jurisdictions and agencies. Coast Guard facilities may conduct simultaneous operations along with other types of responders under ICS management.
information marks	Aids to navigation that inform the mariner of dangers, restriction, or other information. Also referred to as regulatory marks.
inlet	A recess, as a bay or cove, along a coastline. A stream or bay leading inland, as from the ocean. A narrow passage of water, as between two islands.
isolated danger mark	A mark erected on, or moored above or very near, an isolated danger which has navigable water all around it.
junction	The point where a channel divides when proceeding seaward. The place where a branch of a river departs from the main stream.
junction aid (obstruction aid)	Horizontally striped aids that indicate the preferred channel with the top color on the aid. They may also mark an obstruction.
kapok	A silky fiber obtained from the fruit of the silk-cotton tree and used for buoyancy, insulation and as padding in seat cushions and life preservers.
keel	Central, longitudinal beam or timber of a ship from which the frames and hull plating rise.
kicker hook	See <i>Skiff Hook</i> .
knot (kn or kt)	A unit of speed equivalent to one nautical mile (6,080 feet) per hour. A measurement of a ship's speed through water. A collective term for hitches and bends.

**landmark
boundaries
method**

In SAR, one of several methods to define a search area.

Lateral marks

Buoys or beacons that indicate port and starboard sides of a route and are used in conjunction with a “Conventional direction of buoyage.”

lateral system

A system of aids to navigation in which characteristics of buoys and beacons indicate the sides of the channel or route relative to a conventional direction of buoyage (usually upstream).

**Lateral System of
Buoyage**

See *Lateral System*.

latitude

The measure of angular distance in degrees, minutes, and seconds of arc from 0 degrees to 90 degrees north or south of the equator.

lazarette

Compartment in the extreme after part of the boat generally used for storage.

leeward

The side or direction away from the wind, the lee side.

leeway

Drift of an object with the wind, on the surface of the sea. The sideward motion of a ship because of wind and current, the difference between her heading (course steered) and her track (course made good). Sometimes called drift. In SAR, movement of search object through water caused by local winds blowing against that object.

life jacket

See *Personal Flotation Device*.

**life ring (ring
buoy)**

Buoyant device, usually fitted with a light & smoke marker, for throwing to a person in the water.



lifeline	Line secured along the deck to lay hold of in heavy weather; any line used to assist personnel; knotted line secured to the span of lifeboat davits (manropes or monkey lines) for the use of the crew when hoisting and lowering. The lines between stanchions along the outboard edges of a ship's weather decks are all loosely referred to as lifelines, but specifically the top line is the lifeline, middle is the housing line, and bottom is the footline. Any line attached to a lifeboat or life raft to assist people in the water. Also called a grab rope.
light	The signal emitted by a lighted aid to navigation. The illuminating apparatus used to emit the light signal. A lighted aid to navigation on a fixed structure.
light buoy	Floating framework aid to navigation, supporting a light, usually powered by battery.
light list	A United States Coast Guard publication (multiple volumes) that gives detailed information on aids to navigation.
light rhythms	Different patterns of lights, and flashing combinations that indicate to the mariner the purpose of the aid to navigation on which it is installed.
light sector	The arc over which a light is visible, described in degrees true, as observed from seaward towards the light. May be used to define distinctive color difference of two adjoining sectors, or an obscured sector.
lighthouse	A lighted beacon of major importance. Fixed structures ranging in size from the typical major seacoast lighthouse to much smaller, single pile structures. Placed on shore or on marine sites and most often do not show lateral aid to navigation markings. They assist the mariner in determining his position or safe course, or warn of obstructions or dangers to navigation. Lighthouses with no lateral significance usually exhibit a white light, but can use sectored lights to mark shoals or warn mariners of other dangers.
list	Permanent leaning of a vessel to port or starboard.



local notice to mariners	A written document issued by each U.S. Coast Guard district to disseminate important information affecting aids to navigation, dredging, marine construction, special marine activities, and bridge construction on the waterways with that district.
log	Device for measuring a ship's speed and distance traveled through the water. To record something is to log it. Short for logbook.
logbook	Any chronological record of events, as an engineering watch log.
longitude	A measure of angular distance in degrees, minutes, and seconds east or west of the Prime Meridian at Greenwich.
longitudinal	A structural member laid parallel to the keel upon which the plating or planking is secured. Longitudinals usually intersect frames to complete the skeletal framework of a vessel.
longshore current	Currents that run parallel to the shore and inside the breakers as a result of the water transported to the beach by the waves.
lookout	A person stationed as a visual watch
LORAN-C	An acronym for LOnge Range Aid to Navigation; an electronic aid to navigation consisting of shore-based radio transmitters
loud hailer	A loud speaker; public address system.
magnetic compass	A compass using the earth's magnetic field to align the compass card. (see Compass)
magnetic course (M)	Course relative to magnetic north; compass course corrected for deviation..
MARB	Marine Assistance Radio Broadcast
maritime	Located on or close to the sea; of or concerned with shipping or navigation.



mark	A visual aid to navigation. Often called navigation mark, includes floating marks (buoys) and fixed marks (beacons).
marline	Small stuff (cord) tarred. Used for mousing, etc.
mast	A spar located above the keel and rising above the main deck to which may be attached sails, navigation lights, and/or various electronic hardware. The mast will vary in height depending on vessel type or use.
MAYDAY	Spoken international distress signal, repeated three times. Derived from the French <i>M'aider</i> (help me).
MEDEVAC	“Medical Evacuation” Evacuation of a person for medical reasons.
messenger	Light line used to carry across a larger line or hawser. Person who carries messages for OOD or other officers of the watch.
mid-channel	Center of a navigable channel. May be marked by safemarks.
Modified U.S. Aid System	Used on the Intracoastal waterway, these aids are also equipped with special yellow strips, triangles, or squares. When used on the western rivers (Mississippi River System), these aids are not numbered (Mississippi River System above Baton Rouge and Alabama Rivers).
mooring	Chain or synthetic line that attaches a floating object to a stationary object. (e.g., dock, sinker)
mooring buoy	White buoy with a blue stripe, used for a vessel to tie up to, also designates an anchorage area.
Motor Lifeboat (MLB)	Coast Guard boat designed to perform SAR missions, including surf and bar operations, in adverse weather and sea conditions. They are self-righting and self-bailing.
mousing	The use of small stuff or wire to hold together components that would otherwise work loose due to friction (i.e., mousing the screw pin of a shackle into place).



N-Dura hose	Double synthetic jacketed and impregnated rubber lined hose, orange in color, used in the Coast Guard for fire fighting.
nautical chart	Printed or electronic geographic representation of waterways showing positions of aids to navigation and other fixed points and references to guide the mariner.
nautical mile (NM)	2000 yards; Length of one minute of arc of the great circle of the earth; 6,076 feet compared to 5,280 feet per a statute (land) mile.
nautical slide rule	An instrument used to solve time, speed, and distance problems.
navigable channel	A channel that has sufficient depth to be safely navigated by a vessel.
navigable waters	Coastal waters, including bays, sounds, rivers, and lakes, that are navigable from the sea.
navigation	The art and science of locating the position and plotting the course of a ship or aircraft
night sun	A helicopter's light that is an effective search tool at night in a clear atmosphere with no moisture in the air.
noise	The result of the propeller blade at the top of the arc transferring energy to the hull.
normal endurance	The average length of time, i.e., the average length of time to expect a boat crew to remain on a mission.
nun buoy (conical)	Buoy that is cylindrical at the water line, tapering to a blunt point at the top. Lateral mark that is red, even numbered, and usually marks the port hand side proceeding to seaward.
obstruction aid	See <i>Junction Aid</i> .



occulting light	A light in which the total duration of light in each period is clearly longer than the total duration of darkness and in which the intervals of darkness are all of equal duration. (Commonly used for single-occulting light which exhibits only single occultations that are repeated at regular intervals.)
Officer of the Deck (day) (OOD)	An officer in charge of the ship representing the commanding officer. Officer of the day at shore activities.
offshore	The region seaward of a specified depth. Opposite is inshore or near-shore.
on scene	The search area or the actual distress site.
On Scene Commander (OSC)	A person designated to coordinate search and rescue operations within a specified area associated with a distress incident.
opening	Refers to the increasing of distance between two vessels.
out of step	Refers to the position of two boats (i.e., towing operations) where one boat is on the top of the crest of a wave and the other is in the trough between the waves.
outboard	In the direction away from the center line of the ship. Opposite is inboard.
outdrive	A vessel's drive unit.
overdue	Term used when a vessel or person has not arrived at the time and place expected.
overhauling the fire	The general procedures done after a fire has been extinguished. They include breaking up combustible material with a fire ax or a fire rake and cooling the fire area with water or fog.
overload	Exceeding the designed load limits of a vessel; exceeding the recommended work load of line or wire rope.



pacing	Refers to two vessels matching speed and course.
pad eye	A metal ring welded to the deck or bulkhead.
painter line (painter)	A line at the bow or stern of a boat which is used for making fast; a single line used to take a vessel in tow alongside, commonly used with ships and their boats when placing the boat into use over the side.
parallel approach	Arc approach used where one vessel is approached parallel to another.
parallel track pattern	In SAR, one of several types of search patterns. There are two parallel track patterns; they are (1) single unit (PS) (2) and multi-unit (PM).
passenger space	A space aboard a vessel that is designated for passengers.
Persons On Board (POB)	The number of people aboard a craft.
personal flotation device (PFD)	A general name for various types of devices designed to keep a person afloat in water (e.g., life preserver, vest, cushion, ring, and other throwable items).
personnel marker light (PML)	Device that uses either a battery or chemical action to provide light for the wearer to be seen during darkness.
piling	A long, heavy timber driven into the seabed or river bed to serve as a support for an aid to navigation or dock.
pitch	The vertical motion of a ship's bow or stern in a seaway about the athwartships axis. Of a propeller, the axial advance during one revolution. (see Roll, Yaw, Heaving, Sway, Surge)
pitchpole	Term that refers to a vessel going end-over-end, caused by large waves or heavy surf. The bow buries itself in the wave and the stern pitches over the bow, capsizing the vessel.
planing hull	A boat design that allows the vessel to ride with the majority of it's hull out of the water once it's cruising speed is reached (e.g., 8 meter RHI).



polyethylene float line	A line that floats, used with rescue devices, life rings.
port	Left side of vessel looking forward toward the bow.
port hole	An opening in the hull, door, or superstructure of a boat/ship often covered with a watertight closure made of metal or wood.
port light	A port hole closure or covering having a glass lens through which light may pass.
preferred channel mark	A lateral mark indicating a channel junction, or a wreck or other obstruction which, after consulting a chart, may be passed on either side.
preventer line (preventer)	Any line used for additional safety or security or to keep something from falling or running free.
primary aid to navigation	An aid to navigation established for the purpose of making landfalls and coastwise passages from headland to headland.
probability of detection (POD)	The probability of the search object being detected, assuming it was in the areas searched.
probability of success (POS)	The probability of finding the search object with a particular search.
proceeding from seaward	Following the Atlantic coast in a southerly direction, northerly and westerly along the Gulf coast and in a northerly direction on the Pacific coast. On the Great Lakes proceeding from seaward means following a generally westerly and northerly direction, except on Lake Michigan where the direction is southerly. On the Mississippi and Ohio Rivers and their tributaries, proceeding from seaward means from the Gulf of Mexico toward the headwaters of the rivers (upstream).
prop wash	The result of the propeller blade at the top of the arc transferring energy to the water surface.

**propeller**

A device consisting of a central hub with radiating blades forming a helical pattern and when turned in the water creates a discharge that drives a boat.

pyrotechnics

Ammunition, flares, or fireworks used for signaling, illuminating, or marking targets.

quarantine anchorage buoy

A yellow special purpose buoy indicating a vessel is under quarantine.

quarter

One side or the other of the stern of a ship. To be broad on the quarter means to be 45 degrees away from dead astern, starboard or port quarter is used to indicate a specific side.

RACON

See *Radar Beacon*

RADAR

Radio Detecting And Ranging . An electronic system designed to transmit radio signals and receive reflected images of those signals from a “target” in order to determine the bearing and distance to the “target.”

radar beacon (RACON)

A radar beacon that produces a coded response, or radar paint, when triggered by a radar signal.

radar reflector

A special fixture fitted to or incorporated into the design of certain aids to navigation to enhance their ability to reflect radar energy. In general, these fixtures will materially improve the aid to navigation for use by vessels with radar. They help radar equipped vessels to detect buoys and beacons. They do not positively identify a radar target as an aid to navigation. Also used on small craft with low RADAR profiles.

radiation fog

A type of fog that occurs mainly at night with the cooling of the earth’s surface and the air, which is then cooled below its dew point as it touches the ground; most common in middle and high latitudes, near the inland lakes and rivers; burns off with sunlight.

radio watch

Person assigned to stand by and monitor the radios. Responsible for routine communication and logging, as well as properly handling responses to emergency radio communications.



radiobeacon	Electronic apparatus which transmits a radio signal for use in providing a mariner a line of position. First electronic system of navigation. Provided offshore coverage and became the first all-weather electronic aid to navigation.
range	A measurement of distance usually given in yards. Also, a line formed by the extension of a line connecting two charted points.
range lights	Two lights associated to form a range which often, but not necessarily, indicates a channel centerline. The front range light is the lower of the two, and nearer to the mariner using the range. The rear range light is higher and further from the mariner.
range line	The lining up of range lights and markers to determine the safe and correct line of travel, the specific course to steer to remain in the center of the channel.
range marker	High visibility markers that have no lights. (see range lights)
re-flash watch	A watch established to prevent a possible re-flash or rekindle of a fire after a fire has been put out.
re-float	The act of ungrounding a boat.
red, right, returning	Saying to remember which aids you should be seeing off vessel's starboard side when returning from seaward.
regulatory marks	A white and orange aid to navigation with no lateral significance. Used to indicate a special meaning to the mariner, such as danger, restricted operations, or exclusion area.
rescue basket	Device for lifting an injured or exhausted person out of the water.
rescue swimmer	In the Coast Guard, a specially trained individual that is deployed from a helicopters, boats, or cutters to recover an incapacitated victim from the water, day or night.

**retroreflective material**

Material that reflects light. Can be found on equipment such as PFDs or hypothermia protective clothing.

rig

To devise, set up, arrange. An arrangement or contrivance. General description of a ship's upper works; to set up spars or to fit out. A

distinctive arrangement of sails (rigging), as in a schooner rig. An arrangement of equipment and machinery, as an oil rig.

rigging

The ropes, lines, wires, turnbuckles, and other gear supporting and attached to stacks, masts and topside structures. Standing rigging more or less permanently fixed. Running rigging is adjustable, e.g., cargo handling gear.

rip current

Currents created along a long beach or reef surf zone due to water from waves hitting the beach and traveling out to the sides and parallel to the shore line, creating a longshore current that eventually returns to sea.

riprap

Stone or broken rock thrown together without order to form a protective wall around a navigation aid.

river current

Flow of water in a river.

roll

Vessel motion caused by a wave lifting up one side of the vessel, rolling under the vessel and dropping that side, then lifting the other side and dropping it in turn.

roller

A long usually non-breaking wave generated by distant winds and a source of big surf, which is a hazard to boats.

rooster tail

A pronounced aerated-water discharge astern of a craft; an indicator of waterjet propulsion.

rough bar

Rough bar is determined to exist when breaking seas exceed 8 feet and/or when, in the judgment of the Commanding Officer/Officer in Charge, rough bar/surf conditions exist, and/or whenever there is doubt in the judgment of the coxswain as to the present conditions.



RTV	Silicone rubber used for plugging holes and seams. Sticks to wet surfaces and will set up under water. Used in damage control for temporary repairs.
rubrail	A permanent fixture, often running the length of a boat, made of rubber that provides protection much as a fender would.
rudder	A flat surface rigged vertically astern used to steer a ship, boat, or aircraft.
safe water marks (fairways, mid-channels)	Used to mark fairways, mid-channels, and offshore approach points, and have unobstructed water on all sides. They may have a red spherical shape, or a red spherical topmark, are red and white vertically striped, and if lighted, display a white light with Morse code "A" (short-long flash).
sail area	On a vessel, the amount of surface upon which the wind acts.
Sampson post	Vertical timber or metal post on the forward deck of a boat used in towing and securing. Sometimes used as synonym for King Post.
SAR emergency phases	Refers to 3 phases of SAR levels and responses. These are: (1) Uncertainty (key word: "doubt"); (2) Alert (key word: "apprehension"); and (3) Distress (key words: "grave and imminent danger" requiring "immediate assistance").
SAR incident folder/form	A form to record essential elements of a case. Information needed is outlined with blanks left to fill in necessary information as case progresses.
SAR Mission Coordinator (SMC)	The official temporarily assigned to coordinate response to an actual or apparent distress situation.
SARSAT	See <i>Cospas-Sarsat System</i> . <u>S</u> earch and <u>R</u> escue <u>S</u> atellite <u>A</u> ided <u>T</u> racking.



scope	Length of anchor line or chain. Number of fathoms of chain out to anchor or mooring buoy. If to anchor, scope is increased in strong winds for more holding power. Also, the length of towline or distance from the stern of the towing vessel to the bow of the tow.
scouring	A method to refloat a stranded boat using the current from the assisting boat's screw to "scour" or create a channel for the grounded boat, in the sand, mud or gravel bottom when the water depth allows the assisting boat access.
screw	A vessel's propeller.
scupper	An opening in the gunwale or deck of a boat which allows water taken over the side to exit. Common to most self-bailing boats.
scuttle	Small, quick-closing access hole; to sink a ship deliberately.
sea anchor	Device, usually of wood and/or canvas, streamed by a vessel in heavy weather to hold the bow up to the sea. It's effect is similar to a drogue in that it slows the vessels rate of drift. However, it is usually made off to the bow opposed to the stern as in the use of a drogue.
sea chest	Intake between ship's side and sea valve or seacock. Sailor's trunk. A through hull fitting used in the vessels engine cooling systems. It allows the vessel to take on sea water through a closed piping system.
sea chest gate valve	A gate valve used in between the sea chest and the fire pump or engine cooling system.
sea cock	Valve in the ship's hull through which sea water may pass.
sea current	Movement of water in the open sea.
sea drogue	See <i>Sea Anchor</i> .
seabed	Ocean floor.



Search and Rescue Unit (SRU)	A unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.
search pattern	A track line or procedure assigned to an SRU for searching a specified area.
seaward	Toward the main body of water, ocean. On the Intracoastal Waterway, returning from seaward is from north to south on the eastern U.S. coast, east to west across the Gulf of Mexico, and south to north along the western seacoast.
seaworthy	Refers to a vessel capable of putting to sea and meeting any usual sea condition. A seagoing ship may for some reason not be seaworthy, such as when damaged.
set (of a current)	The direction toward which the water is flowing. A ship is set by the current. A southerly current and a north wind are going in the same direction. Measured in degrees (usually True).
shackle	U-shaped metal fitting, closed at the open end with a pin, used to connect wire, chain, or line.
shaft	A cylindrical bar that transmits energy from the engine to the propeller.
ship	Any vessel of considerable size navigating deep water, especially one powered by engines and larger than a boat. Also, to set up, to secure in place. To take something aboard.
shock load	Resistance forces caused by intermittent and varying forces of waves or sea conditions encounter by a towing boat on its towing lines and equipment.
short range aids to navigation	Aids to navigation limited in visibility to the mariner (e.g., lighthouses, sector lights, ranges, LNBs, buoys, daymarks, etc.)
Signal Kit/MK-79	Used to signal aircraft and vessels. Each cartridge flare burns red, has a minimum duration of 4.5 seconds, and reaches a height of 250' to 600.'



sinkers	Concrete anchors in various sizes and shapes on the seabed that buoy bodies are attached to by chain or synthetic rope moorings.
siren	A sound signal which uses electricity or compressed air to actuate either a disc or a cup-shaped rotor.
Situation Report (SITREP)	Reports to interested agencies to keep them informed of on-scene conditions and mission progress.
skeg	Continuation of the keel aft under the propeller; in some cases, supports the rudder post.
skiff hook (kicker hook)	Consists of a ladder hook or a stainless steel safety hook to which a six inch length of stainless steel round stock has been welded. A hook that is used in attaching a tow line to a small trailerable boat, using the trailer eyebolt on the boat.
slack water	The period that occurs while the current is changing direction and has no horizontal motion.
sling	A type of rescue device used by a helicopter to hoist uninjured personnel; a lifting device for hoisting cargo.
slip clove hitch	Hitch used when it may be necessary to release a piece of equipment quickly (i.e., fenders or fender board).
smoke and illumination signal	Signal used to attract vessels and aircraft. It has a night end and a day end. The night end produces a red flame, the day end has an orange smoke.
sound buoys	Buoys that warn of danger; they are distinguished by their tone and phase characteristics.
sound signal	A device that transmits sound, intended to provide information to mariners during periods of restricted visibility and foul weather; a signal used to communicate a maneuver between vessels in sight of each other.



special purpose buoys	Also called Special Marks, they are yellow and are not intended to assist in navigation, but to alert the mariner to a special feature or area.
spring line	A mooring line that makes an acute angle with the ship and the pier to which moored, as opposed to a breast line, which is perpendicular, or nearly so, to the pier face; a line used in towing alongside that enables the towing vessel to move the tow forward and/or back the tow (i.e., tow spring and backing spring).
square daymarks	Seen entering from seaward or from north or east proceeding south or west on port hand side of channel (lateral system of buoyage). Green, odd numbered.
stanchion	Vertical metal or wood post aboard a vessel.
standard navy preserver (vest type with collar)	A Navy PFD vest used by the Coast Guard onboard cutters. Allows user to relax, save energy, increase survival time and will keep users head out of water, even if user is unconscious. Not found as part of a boat outfit.
starboard	Right side of the vessel looking forward toward the bow.
starboard hand mark	A buoy or beacon which is left to the starboard hand when proceeding in the "conventional direction of buoyage." Lateral marks positioned on the right side of the channel returning from seaward. Nun buoys are red, day beacons are red, bordered with dark red and triangular shaped.
static discharge wand	A pole like device used to discharge the static electricity during helicopter hoisting/rescue operations. Also known as a Deadman's Stick.
static electricity	A quantity of electricity that builds up in an object and does not discharge until provided a path of flow.
static forces	Constant or internal forces.
station buoy	An unlighted buoy set near a Large Navigation Buoy or an important buoy as a reference point should the primary aid to navigation be moved from its assigned position.



station keeping	The art of keeping a boat in position, relative to another boat, aid, or object with regard to current, sea, and/or weather conditions.
steerage	The act or practice of steering. A ship's steering mechanism.
steerageway	The lowest speed at which a vessel can be steered.
stem	The principal timber at the bow of a wooden ship, to which the bow planks are rabbeted. Its lower end is scarfed to the keel, and the bowsprit rests on the upper end. The cutwater, or false stem (analogous to false keel), is attached to the fore part of the stem and may be carved or otherwise embellished, especially in the vicinity of the figurehead, which usually rests upon it. In steel ships, the stem is the foremost vertical or near-vertical strength member, around which or to which the plating of the bow is welded or riveted. Compare stern-post.
stem pad eye (trailer eye bolt)	An attaching point available on most trailerized small boats.
stem the forces	To keep the current or wind directly on the bow or stern and hold position by setting boat speed to equally oppose the speed of drift.
stern	The extreme after end of a vessel.
stokes litter	A rescue device generally used to transport non-ambulatory persons or persons who have injuries that might be aggravated by other means of transportation.
strobe light	Device that emits a high intensity flashing light visible for great distances. Used to attract the attention of aircraft, ships, or ground parties, it flashes white light at 50 plus or minus 10 times per minute.
strut	An external support for the propeller shaft integral to the hull/under water body.
superstructure	Any raised portion of a vessel's hull above a continuous deck (e.g., pilot house).



surf	In the Coast Guard, surf is determined to exist when <u>breaking seas</u> exceed 8 feet and/or when, in the judgment of the Commanding Officer/Officer in Charge, rough bar/surf conditions exist, and/or whenever there is doubt in the mind of the coxswain as to the present conditions.
surf line	The outermost line of waves that break near shore, over a reef, or shoal. Generally refers to the outermost line of consistent surf.
Surf Rescue Boat (SRB)	Coast Guard boat used to perform SAR missions, including surf and bar operations in adverse weather and sea conditions. They are self-righting and self-bailing. Fast response for rescuing people, and delivering damage control equipment or emergency medical services. They are an alternative, not a primary resource, and are used to arrive on scene quickly and stabilize a situation until a more capable unit arrives.
surf zone	The area near shore in which breaking occurs continuously in various intensities.
surface swimmer	In the Coast Guard, a specially trained individual that is deployed from floating units, piers, or the shore to help people in the water.
survival kit	Kit designed to aid a person in the water to survive. Consists of a belt attached around the waist. A personal signal kit is also attached. Boat crews are provided with a vest containing the items found in the signal kit as prescribed in the Rescue and Survival Systems Manual.
sweep width (W)	A measure of the detection capability, or distance on both sides of the SRU, based on target characteristics, weather, and other factors.
swell	Wind-generated waves which have advanced into a calmer area and are decreased in height and gaining a more rounded form. The heave of the sea. (see Roller)
swimmer's harness	A harness used to tether and retrieve surface swimmers during rescue/recovery operations.
tactical diameter	The distance made to the right or left of the original course when a turn of 180 degrees has been completed with the rudder at a constant angle.



taffrail	A rail around a vessel's stern over which a towline is passed. Used to reduce the effects of chaffing on the towline.
tag line (trail line)	Line used to steady a load being swung in or out.
tandem	An arrangement of two or more persons, vessels or objects placed one behind the other.
thimble	Metal ring grooved to fit inside a grommet or eye splice.
through bolt	A bolt that is used to fasten a fitting to the deck. It goes through the deck and backing plate (located below deck).
thumbs up	Signal given by the designated crewmember to indicate hoisting operation is to begin.
tidal current	Horizontal motion of water caused by the vertical rise and fall of the tide.
tide	Periodic vertical rise and fall of the water resulting from the gravitational interactions between the sun, moon, and earth.
tie down	Fittings that can be used to secure lines on a deck or dock.
toed ("toed in")	In a side by side towing operation, "toed" refers to the bow of the towed boat slightly angled toward the bow of the towing boat.
topmarks	One or more relatively small objects of characteristic shape and color placed on an aid to identify its purpose. (i.e., pillar buoys surmounted with colored shapes).
topside	Area above the main deck on a vessel; weather deck.
tow line	A line, cable, or chain used in towing a vessel.
tow strap	When towing along side the tow strap is secured near the towing vessel's bow and the towed vessel's stern (see SPRING LINE)



towing bridle	See <i>Bridle</i> .
towing hardware	Hardware used in towing. (i.e., towing bitt, various cleats, bitts, deck fittings, or trailer eyebolts)
towing watch	A crewmember who monitors the safety of a towing operation. Responsible to the coxswain.
track spacing (S)	The distance between adjacent parallel search tracks (legs).
trail line (tag line)	A weighted line that is lowered from a helo before the rescue device. Its purpose is to allow the personnel below to guide and control the rescue device as it is lowered.
transom	Planking across the stern of a vessel.
triage	The process of assessing survivors according to medical condition and assigning them priorities for emergency care, treatment, and evacuation.
triangular daymark	Seen entering from seaward, or from the north or east proceeding south or west on starboard hand side of channel (lateral system of buoyage). Red, even numbered.
trim	The fore-and-aft inclination of a ship, down by the head or down by the stern. Sometimes used to include list. Also means shipshape, neat.
trim control	A control that adjusts the propeller axis angle with horizontal.
tripping line	Small line attached to the small end of a drogue, so the device can be turned around to be retrieved.
trough	The valley between waves.
U.S. Aids to Navigation System	System encompasses buoys and beacons conforming to (or being converted to) the IALA (International Association of Lighthouse Authorities), buoyage guidelines and other short range aids to navigation not covered by these guidelines. These other aids to navigation are lighthouses, sector lights, ranges, and large navigation buoys (LNBs).

**Uniform State
Waterway
Marking System
(USWMS)**

Designed for use on lakes and other inland waterways that are not portrayed on nautical charts. Authorized for use on other waters as well. Supplemented the existing federal marking system and is generally compatible with it.

Utility Boat (UTB)

41' UTB, Coast Guard Utility boat is light weight and possesses a deep "V" planing hull constructed of aluminum. It is fast, powerful, maneuverable and designed to operate in moderate weather and sea conditions. It normally carries a crew of three, a coxswain, boat engineer, and crewmember.

vari-nozzle

A fire-fighting nozzle having a fully adjustable spray head that allows the operator to deliver a wide range of spray patterns (from stream to low velocity fog).

venturi effect

To move a water from one place to another by entraining the pumped liquid in a rapidly flowing stream. It is the principle used by the eductor in dewatering a vessel.

vessel

By U.S. statutes, includes every description of craft, ship or other contrivance used as a means of transportation on water. "Any vehicle in which man or goods are carried on water." (see Ship)

**waist and/or tag
line**

Lines used to secure the hull or cabin bridles in position for towing.

wake

The disturbed water astern of a moving vessel.

watch circle

The circle in which an anchored buoy or object moves on the surface in relationship to tides, currents and wind.

**watertight
integrity**

The closing down of openings to prevent entrance of water into vessel.

wave

Waves are periodic disturbances of the sea surface, caused by wind (and sometimes by earthquakes).

wave frequency

The number of crests passing a fixed point in a given time.



wave height	The height from the bottom of a wave's trough to the top of its crest; measured in the vertical, not diagonal.
wave interference	Caused by waves, refracted or reflected, interacting with other waves, often increasing or decreasing wave height.
wave length	The distance from one wave crest to the next in the same wave group or series.
wave period	The time, in seconds, it takes for two successive crests to pass a fixed point.
wave reflection	The tendency of a wave to move back towards the incoming waves in response to interaction with any obstacle.
wave refraction	The tendency of a wave to bend in response to interaction with the bottom and slows in shoal areas. Refraction also occurs when a wave passes around a point of land, jetty, or an island.
wave saddle	The lowest part of a wave, bordered on both sides by higher ones; often small, unbroken section of a wave that is breaking.
wave series	A group of waves that seem to travel together, at the same speed.
wave shoulder	The edge of a wave. It may be the very edge of the whitewater on a breaker, or the edge of a high peaking wave that is about to break.
wedge	Used as temporary repair in event of damage aboard vessel. Made of soft wood they are forced into holes or damaged areas to stop leaking, or to plug damaged structures or to reinforce shoving. Part of a damage control kit.
well deck	Part of the weather deck having some sort of superstructure both forward and aft of it. A vertically recessed area in the main deck that allows the crewmember to work low to the water.

**wet suit**

A tight-fitting rubber suit worn by a skin diver in order to retain body heat. Designed to protect wearer from exposure to cold, wind, and spray. Constructed of foam neoprene, a durable and elastic material with excellent flotation characteristics. These buoyancy characteristics, which affect your entire body, will cause you to float horizontally, either face up or face down.

whistle

A piece of survival equipment used to produce a shrill sound by blowing on or through it. To summon, signal or direct by whistling. A device for making whistling sounds by means of forced air or steam. A whistling sound used to summon or command. It is attached to some PFDs and is an optional item for the personal signal kit. It has proven very useful in locating survivors in inclement weather and can be heard up to 1,000 yards.

whistle buoy

A wave actuated sound signal on buoys which produces sound by emitting compressed air through a circumferential slot into a cylindrical bell chamber. Found outside harbors. Sound range greater than 1 mile.

white water

See *Foam Crest*.

Williamson turn

Used if an individual or object falls overboard during periods of darkness or restricted visibility and the exact time of the incident is unknown. Done by turning 60 degrees to port or starboard from the original course, there shifting rubber until vessel comes about on a reverse course. May be of little value to boats having a small turning radius.

wind-chill factor

An estimated measurement of the cooling effect of a combination of air temperature and wind speed in relation to the loss of body heat from exposed skin.

wind direction

The true heading from which the wind blows.

wind driven current

The effect of wind pushing water in the direction of the wind.

window

An area where the waves have momentarily stopped breaking, opening up a safer area of operation for a vessel.



wind shadow

When an object blocks the wind, creating an area of no wind.

windward

Towards the wind.

yaw

Rotary oscillation about a ship's vertical axis in a seaway. Sheering off alternately to port and starboard.

